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ORIGINAL COMMUNICATIONS.

A HISTORY OF DENTISTRY.

BY GEORGE H. PERINE, D. D. S., NEW YORK.

[Continued from page 56.]

THE EARLY PRACTITIONERS IN AMERICA.

Prior to the War of Independence there was, so far as we can learn, but one dentist in the American Colonies, and he was an Englishman by the name of Robert Wooffindale. He was born at Sheffield, England, in 1742. He arrived in New York in October, 1766, and divided his time between New York and Philadelphia. He had been in this country but eighteen months when he returned to England and began practice in Liverpool, where he continued until 1789, when he received news of the death of the celebrated dentist, Thomas Berdmore, his preceptor, to whom he gave bonds not to practice his profession in London during Berdmore's life. Being now absolved from his bond, he returned to London, and there began practice, meeting with unparalleled success. It was during the term of his residence in London that he had tendered him the appointment of Dentist to the Prince of Wales, which he however

declined. He published in England, in 1783, a work entitled "*Practical Observations on the Human Teeth.*" He came again to America about 1797, and resumed his practice, but he failed to find as clear a field as that he had vacated nearly thirty years before. Wooffindale was a man of experience, and possessed those rare gifts—clear perception and untiring energy—which lead in most cases to the accomplishment of brilliant results. He was the first to insert a full case of artificial teeth, and to employ gold foil for filling, in this country. After practicing in New York about two years he resigned his office to his eldest son, and retired to his country seat on Long Island, where he died October 3, 1828, at the age of 68 years.

The names of John Baker of Philadelphia, and Isaac Greenwood of Boston, appear prominently in the records of the past. Greenwood practiced in Boston at an early period in our history. His two sons, Clarke and John, settled in New York in 1778 and in 1783 respectively. They were probably the first American dentists in that city. John Greenwood was an industrious man, and acquired for himself a worthy reputation. An upper set of teeth carved by him for Washington from hippopotamus ivory is still preserved in the Museum of the Baltimore College of Dental Surgery. That his illustrious patron was well pleased with Greenwood's skill is evident from the expression of satisfaction contained in a letter written by him to the dentist after having worn the teeth some time. They were without doubt good of their kind and for their time. But the thought of the Father of His Country with a row of hippopotamus bone between his gums will doubtless suggest to the non-professional reader a somewhat ludicrous picture, and we must acknowledge that Dr. Greenwood's handiwork, compared with that of the most unskillful practitioner of the present day, looks extremely rude; and, we may add, inappropriate for the purpose for which they were designed. Wm. Pitt was the name of a skillful dentist who was for a considerable time associated in practice with Dr. Greenwood.

Dr. Hayden speaks of one Whitelock, a dentist who about this period came over from England with a theatrical company, but he appears to have left behind him but few traces of success in the practice of the specialty. It is hardly likely that his connection with the stage would tend to prompt him to any very earnest or prolonged efforts of a professional character. The excitement and peculiar fascinations of the strolling players' life, as it existed a century ago, were certainly not likely to shed a charm upon the study and labor

necessary to the achievement of permanent success in any profession, particularly that of dentistry.

Perhaps no name among those who were practicing in this country at the close of the last century stands more prominent than that of Le Maire, a French dentist, who came to this country with Lafayette. To him the profession is indebted for a number of inventions and improvements in instruments in use in the operative department, which were at this time in a very imperfect state. Le Maire is credited with considerable skill in practical operations, and especially in transplanting teeth. He settled in Philadelphia, where he undertook the instruction of a few pupils, thus laying the foundation of the dental specialty in this country. In an advertisement published by Le Maire in a Philadelphia paper, in 1784, he offered two guineas each for sound teeth to be obtained from "persons disposed to sell their front teeth or any of them." Le Maire, after several years' practice here, which it is safe to conclude proved remunerative, returned to France, where he soon after died, having reached nearly four score years of age.

A. D. SPENCER, who is generally believed to have been one of Le Maire's pupils, was a man of brilliant professional attainment, who succeeded in winning for himself a desirable reputation in Philadelphia during the early part of our century.

It must be acknowledged that James Gardette, who arrived in Boston upon a French brig-of-war in 1777, did much for the elevation of the science of dentistry in America. He was born at Agen, France, August 13, 1756, and was a man of great refinement and education, having graduated from the Royal Medical School of Paris, after which he entered the hospital of Toulouse, evidently realizing that dental knowledge to a naval surgeon, in which capacity he came to this country, was a necessity. He had carefully studied the specialty in France, with Faudinière. We venture to say that the day is not far distant when the want of dental attention on shipboard, which Dr. Gardette's keen perception recognized, will be supplied; when every government vessel will not only have its dental attendant, but every camp and army hospital throughout the civilized world will be provided with one whose duty it shall be to meet the dental requirements of the now neglected servants of this and other lands.

Gardette, soon after his arrival in this country, resigned his commission, and settled in Newport, R. I., and turned his attention to the practice of dentistry solely. He was provided with the best dental

instruments obtainable in France, and was the possessor also of a valuable library. After practicing for a time in Boston, Newport and New York, he made his way to Philadelphia, where he soon acquired a fine reputation for his knowledge and skill. At this period, the majority of our people failed to realize the necessity of dental operations, and the requisite materials used in ordinary practice were obtainable only in London or Paris; hence, as must be readily understood, Gardette's efforts were attended with more or less inconvenience. He however made many improvements in the ordinary methods of practice, and the instruments in use. He was the first in this country to substitute gold clasps for the wire and silk attachments formerly employed in securing artificial teeth in place. He also introduced a gold swedged plate, to which the substituted teeth were attached in such a manner as to allow them to rest upon the gum instead of the gold. He is recorded as one of the first to apply the principle of atmospheric pressure for the support of entire upper sets of artificial teeth, which displaced spiral springs and other cumbersome contrivances then in use. He was also among the first who adopted the use of gold foil (introduced into practice here by Woofindale) in place of lead or tin for filling teeth, and it is stated that he, at one period when there was no gold-beater in the country who could furnish such foil as he required, made such from Dutch ducats. His treatment of dental diseases was of equally as advanced a character. He advocated extraction of the teeth at an early age, when necessary, to afford space for the proper arrangement of the second dentition, and he also expressed it as his conviction that decay often arose from lateral pressure, "owing to the circle of the jaw being too narrow to accommodate the number of the teeth when of an unusual size." It was probably Gardette's limited knowledge of our language which prevented him from giving the profession in this country a clear account of his improvements and views. His only publication was, we believe, a short paper opposing the transplanting of teeth, which appeared in the *Medical Record* of January, 1827. In 1829 he carried out a long cherished desire, that of returning to his native country after an absence of fifty-two years, where at Bordeaux, in 1831, his long and useful life terminated.

Joseph Flagg was another of Le Maire's pupils, and from the record he has left behind him he certainly proved a credit to his instructor. His knowledge of the profession was gained while the French and American army, with which he was connected, were in

winter quarters near Providence, R. I., in 1781–82. When war was proclaimed between Great Britain and the United States, in 1812, Flagg again entered the army. He was taken prisoner and carried to England where, while on parol, he made the acquaintance of Sir Astley Cooper, whose assistant he became at Guy's hospital. Previous to the breaking out of the war of 1812, he had practiced dentistry in Boston, and on his return from England he again applied himself to his profesion in the same city, of which he was, we believe, a native. Dr. Flagg was exceedingly expert in the artificial department of dentistry. A circular issued by him, about 1790, states that he "sews up harelips, and fixes gold roofs and palates, greatly assisting the pronunciation and the swallow." His experience at Guy's hospital doubtless did much toward perfecting his knowledge of, and greatly augmenting his skill in, surgical operations.

Next in order after Dr. Flagg comes the name of Edward Hudson, who was undoubtedly in several respects one of the most remarkable men the profession has produced. Not only was he very skillful as a practitioner, but he possessed artistic and literary attainments of a high order, which everywhere and at all times insured to him an elevated social position, while the political difficulties in which he became entangled, together with those whose names will forever live in the history of Ireland (his birthplace), made him an object of considerable interest in this country. He was a graduate of Trinity College, Dublin, but studied dentistry with a cousin, who was prominent in that city as an able practitioner. In the year 1798 he was arrested by the British government on a charge of conspiracy, and for four years imprisoned in Fort George, Scotland. Upon his release from confinement, he came to this country, and settled in Philadelphia, where he undertook the practice of the specialty. He did not at first, however, meet with much encouragement, owing in a measure, no doubt, to Gardette's popularity in the Quaker city; hence, he turned his attention at intervals to various outside business enterprises which, however, proved only a succession of financial disasters. At length he settled down with the fixed determination of giving his exclusive attention to his profession, and his perseverance and patience were after a little time rewarded with success in the recognition of his abilities. All classes of people were beginning to understand that diseased teeth, instead of being extracted, could be preserved by proper treatment, and the fact that Dr. Hudson understood the means of accomplishing the desired object soon became

acknowledged. Hence, his fame for the successful performance of surgical operations increased with rapidity, and it is claimed for him that many of the operations he performed were equal to those accomplished under the methods of practice of the present day. About the year 1820 Dr. Hudson introduced a cast plate as a base for artificial teeth, but owing to the method of manipulating, it did not meet with any degree of favor in his time. Unfortunately, reliable records of Hudson's professional movements are but meagre, and we are unable to discover any professional writings which he may have left behind. The stormy haze of romance which enveloped this gifted and worthy man's life ended in January, 1833, at the age of 61 years.

The next name among the pioneers of dentistry in this country, worthy of mention, is Jabez Parkhurst, a native of New Jersey who, after devoting himself to the study of medicine, began his professional career in dentistry. He removed to New York in the year 1799, where he soon established a fine reputation as an expert operator and skillful dentist. He died in 1829, leaving a son to succeed him in practice.

The reader will observe that up to the close of the eighteenth century improvements in method and instruments were by no means numerous in this country, nor could any more rapid advancement be reasonably expected, taking into consideration the limited number of skillful practitioners to be found on this side of the Atlantic. In the professional records given in the succeeding chapters, however, a rapid growth and liberal contribution to methodical and mechanical requirements will be noticeable.

[To be continued.]

OUR NEW YORK LETTER.

The plot thickens! The old war-horses of the profession, while scenting the fray from afar, show no signs of terror at the prospect, but are, on the contrary, evidently anxious for the combat.

The attitude of the *professional* profession toward the "Sheffield Tooth Crown Co.," or the "International Tooth Crown Co.," or whatever it is, has changed.

Until recently the profession has looked upon this concern and its double column advertisements as they have upon the proprietors and advertisements of "Harris' Harassing Hair Harbinger," or any other "cure-all," whispering a low "*quack*" to themselves, perhaps, but

not disposed to interfere with its course as long as they were not encroached upon, remembering, possibly, the old adage: "Wrestling with a dirty dog, if you are not thrown, you are dirtied." Now, however, the profession seems to be placed in a position where they must either fight or humbly bend their necks for a yoke not easier to bear than was the Goodyear patent, and one more galling, as the royalties would be upon patents on methods in use for years, and originated, perhaps, in their own offices.

In the fables of olden times, the cutting off of one head of a dragon is said to be followed by the growing out of a number of others, all more ugly than the one destroyed. Will it be so now if steps are taken to check in any direction the growth of this particular dragon? We hope not, though it does seem as if every movement made by professional dentists against the Sheffields, from their expulsion from the dental societies to the many other expressions of contempt shown them, has resulted in, or at least been followed by, a growth of their prosperity. The master spirit of the so-called Sheffield Co. has very evidently had a series of plans which he has thus far been very successful in carrying out. He is said to have made the statement that "in time he would have every member of the dental profession at his feet"—whatever that may mean—and the procuring of patents upon all the so-called Richmond methods, the ousting of the Richmonds when he had used them all he wished, and the issue of licenses to dentists, all seem, indeed, to be steps in that direction. These licenses are "bold, bad" documents. They are issued for one year only, and give their fortunate (?) purchaser permission to use said methods in consideration of a sum of money and the subscription by the purchaser to several iron-clad oaths, binding him to all sorts of things, one of which is that he will not take or join in any action against the company during any of the many years the patents have to run, even though they—the Sheffields—(and they reserve the right to do it) refuse to renew the license at the end of the first or any year.

In order to procure the patents, Cassius M. Richmond did take oath that the methods in question were original with him and that they were new, having been in use less than two years. As they were not applied for until January, 1883, it would be an easy matter, of course, to prove that the methods had been in use many years before the application was made, and therefore the patents were fraudulently obtained. These Richmond patents are now owned by the Sheffields

and were obtained with their assistance. Dr. C. M. Richmond is under indictment for perjury on account of his share in the fraud; have his abettors done anything criminal and can they be held responsible for their misdeeds?

These questions and others were asked at the March meeting of the First District Dental Society, by one of its most influential members, who made the assertion that if the half could be proved of which he thought the Sheffield Co. guilty, "our state prisons have not been built in vain."

Considerable interest was taken by those present in the remarks of a celebrated patent lawyer who has been the attorney of the Richmonds against the Sheffields, and therefore understanding the case perfectly from a legal standpoint. Being invited to address the meeting, this gentleman gave the members much information concerning the patents, and what he considered to be the "criminality" of the Sheffields on account of the part they had played in procuring them. He also told of a comparatively recent national law which relates to the forfeiture of land grants when they can be proved to have been obtained through fraud; also of the recent very important decision of Judge Wallace that this law also applies to *patents* which have been fraudulently obtained. Therefore, this gentleman reasoned that as it would be a simple matter to prove that fraud had been practiced in procuring these patents, it would be only a question of delay which the Sheffields could cause by the free use of money, when dentists would be able to have them set aside. The matter was discussep as freely as limited time would allow, and the temper of those present was very evidently in favor of raising money for the purpose of pushing the matter at once, but after a vote upon the question it was at length decided to let the subject rest until the next meeting.

After voting ten dollars each to the porters of the S. S. White Dental Manufacturing Co. for their care of the society at their monthly meetings, refusing to entertain Dr. Francis' resignation, and listening to Dr. Bödecker's excellent paper on Iodoform, the society adjourned.

The minds of the leading New York dentists are at present somewhat disturbed over the subject of cylinder filling—*pro* and *con*. The tinder has been quite ready to ignite for some time, and the spark was applied at the February meeting of the Odontological Society by one of its members who, during the discussion on Prof. Fillebrown's excellent paper on "Gold and Its Manipulation," made the assertion that not only was cohesive gold the only gold to use, but that a per-

fect or durable filling could not be made with cylinders. This remark called forth a reply from an advocate and very successful practitioner of cylinder fillings, the same gentleman who, a few years ago, sent teeth with cavities in them to those of his associates of whose work he had the highest opinion, with the request that they should fill them, each after his own fashion, he to bear all incurred expense, and afterwards they should be subjected to all possible tests bearing upon their relative excellence. All complied with the request save one, whose refusal—he being the most earnest advocate of the use of cohesive gold, and curiously enough the same gentleman whose severe condemnation of cylinder filling is noted above—was mainly instrumental in causing the experiments to be dropped.

The discussion of the relative merits of the two methods now seems to be fully opened again, and it is possible that some practical tests may be made by the advocates of each method which will allow conservative outsiders, at least, to come to some decision. One thing is certain, the end is not yet.

D.

TRANSLATIONS.

SPECIAL RESULTS OF THE BERLIN HYGIENIC EXHIBITION, CONCERNING THE METHOD OF EXAMINING FUNGI, AND THE MEANS EMPLOYED FOR PREVENTING THEIR FORMATION.

BY DR. H. BÜCHNER.

[Translated from the Aerztliches Intelligenzblatt, Nov. 27, 1883, by A. M. Dudley, D. D. S.]

Considering the importance which is given at present to mycological discoveries, and which may in a very short time be greatly increased, it appears evidently necessary for the practitioner to be informed more minutely of the progress made in this new branch of medical science. Hygiene, especially, may look forward to a considerable revolution by admitting mycological methods among its researches. In connection with, and even previous to, chemical methods of investigation, methods of mycological examination will, not long hence, be put into practice; for it is evident after now having the real origin of sickness, the true cause in the fungi, before us, necessarily the chief interest will have to be given to this subject.

On this account a justification is scarcely necessary for entering into more minute details about recent mycological investigations and the instruments pertaining thereto. Many a reader may, perhaps, be thereby instigated to deeper studies and to personal effort—an intention which will meet with no particular obstacle by the comparatively slight difficulties of the methods herein described.

At the Hygienic Exposition we were especially led to expect an illustration of the hygienically important mycological methods. This expectation has been amply realized by the Imperial Board of Health. Not only were the important relative objects and instruments placed in a separate pavilion, but care was taken that the visitor should obtain a perfect representation of those methods which are applied by the State Board of Health to examine and prove the presence of the micro-organisms in the soil, air and water, and which have proved practically successful.

To this section of the exhibition the following report shall therefore be devoted. It shall further take into consideration those practically important methods and processes brought forward in the exhibition which may appear applicable to prevent threatening danger on the part of pathologenic micro-organisms, and which therefore merit the attention of practical hygiene. These practical methods will be considered in the second part of this report.

1. *Investigation and Proof of Micro-Organisms.*—The micro-organisms in question are principally cloven and mildew fungi—mainly the former. In order to prove the existence of such in the soil, water, etc., their number must first be increased by breeding, as single examples among other objects, such as particles of soil, might not be detected, or, at least, their species might not be recognized. The breeding is effected in liquids of suitable combinations, called breeding solutions, or in solids containing nutritious matter and water, on a solid productive soil. Both breeding methods have certain indications; each one has certain advantages above the other, and the rational searcher will therefore make use of both methods as they respectively present themselves.

It is erroneous to maintain, as is at present done in many cases, that breeding on solid matter is the only correct method. To be sure, for certain purposes, especially hygienic ones, this method is preferable, as it enables one in the most easy manner to prove existing micro-organisms. Breeding on solid matter, therefore, permits the development of a mycological method, which is of considerable value to

hygiene as an extension of its means of research; breeding is the foundation of a hygienic mycological method. The reasons why this is the case are easily evident. The developing fungi remain clustered together, on a solid substance, and do not, as in a liquid, spread all about. The former method enables different forms of fungi, closely connected, to be cultivated on a limited space, without disturbance, for the purpose of diagnosis, which would be impossible in a liquid, for it happens, as in a soil or water test, that different kinds of fungi appear at the same time. By application of fluids we were, on the contrary, till now, always forced to distribute the material to be investigated into the smallest possible portions on very many separate sterilized glasses, so as to allow, if possible, only one single fungus to grow undisturbed. Such a row of glasses can now be substituted by a single plate of nutritious gelatine.

By means of the colony-like growth on solid soil, that is, by the fact that thousands and millions of similar microscopic individual fungi lie closely together, we further notice certain peculiarities, plainly with the naked eye, which could not be detected in the single individual fungi on account of its extraordinary smallness. Among these we may name the colors: white, blue, green, yellow, brown, red, etc., which very often afford a clue to discovering what kind of a fungus we have to deal with. In like manner, the fungi colonies often show an especial form of growth on solid soil, such as oval-shaped, striped, scaly, curly, etc., which may also be of value in the diagnosis. For this reason the application of solid matter for purposes of breeding is far superior to liquids, especially when it is a question of diagnosis of micro-organisms for hygienic purposes and also for the investigation of pathogenic fungi from diseased organs. The brilliant results of R. Koch may be chiefly ascribed to this method applied by him.

[To be continued.]

DENTAL SERVICE IN PUBLIC SCHOOLS.—The Municipal Council of Paris has arranged to have a periodical inspection of the teeth (as well as the eyes and ears) of the pupils in the public schools.

A BOY describes the method of extracting teeth in this way: "The doctor hitched fast to me, pulled his best, and just before it killed me the tooth came out."

SELECTIONS.

ON THE RELATIONS BETWEEN DENTAL LESIONS AND DISEASES OF THE EYE.

BY HENRY POWER, M. B. LOND., F. R. C. S.,

Opthalmic Surgeon at St. Bartholomew's Hospital, and Surgeon to the Royal Westminster Opthalmic Hospital, &c.

[Read at a meeting of the Odontological Society of Great Britain, November 5th, 1883, and reprinted from the Transactions of the Society.]

[Continued from page 168.]

In unilateral odontalgia, the range of accommodation was reduced on the same side in thirty cases. In fifty-one cases there was no difference in the diminution of the range of accommodation perceptible. In one case, the eye of the side opposite to the unsound teeth was the weaker of the two. In nine cases the teeth were carious on both sides. It appeared further that the influence of dental lesions on the accommodation was more frequent, the younger the patient, the ages between ten and twenty being those in which the paresis was most marked. After thirty years of age the impairment of the power of accommodation was much less frequently observed.

The influence of sex was not noticeable.

In regard to the locality of the dental lesion: in forty-one cases in which the upper maxilla was affected, paresis of accommodation was observed seventeen times. In thirty-nine cases in which the lower jaw was affected, the paresis was observed nineteen times. Disease of the teeth of the lower jaw, therefore, appeared to be somewhat more effective in producing failure of accommodation than that of the upper jaw. Disease of the incisors, and of the first, third and fifth back teeth, using the German mode of notation, appeared to be more frequently associated with the ocular disturbance than lesion of the canines, or of the second and fourth back teeth.

The nature of the dental lesion appeared to be of little importance, great impairment of accommodation accompanying comparatively slight disease, whilst extensive disease of the teeth, accompanied by severe pain, was associated in some instances with only slight paresis of accommodation.

Dental lesions appeared to have no effect upon the sharpness of vision.

The impairment of the power of accommodation was only rarely

noticed by the patients themselves, which perhaps might be in part attributable to the circumstance that in most cases, if the patients were suffering much pain the ordinary avocations were suspended.

The explanation of this remarkable effect of dental lesion is not quite clear. Two views may, it appears to me, be taken of it. We may regard it as of a reflex character, and as being analogous to that weakness or paralysis of certain muscles observed in some of the reflex paralyses of infancy, and which we may consider to be of the nature of an inhibitory influence, since they rapidly supervene and rapidly vanish; or we may regard it as a simple result of the generally lowered tone of the system, consequent on the depressing influence exerted by the dental lesion. I need hardly dwell on the extraordinarily powerful effect on the nervo-muscular and circulatory systems of prolonged toothache, or how the impairment of the digestive functions, the sleeplessness, and general feeling of malaise, lower the tone of the nervous system, and produce indisposition for all kinds of mental and bodily exertion. There can be little doubt that the sympathetic nervous system and the unstriated muscles participate in this depression; and we can easily understand how there is a corresponding diminution in the power of the ciliary muscle, and failure of accommodation. . . . . .

To enable us to speak quite positively upon the influence of carious or painful teeth upon the accommodation we require information that is very rarely attainable. We ought to know that the accommodation was thoroughly good before the teeth were affected, that the failure of accommodation occurred simultaneously, or soon after the dental lesion; and, finally, that after the removal of teeth, recovery of the accommodation power takes place.

In the majority of cases we must rely upon the patient's word for the first of these factors of our judgment; and in regard to the second, so many persons of both sexes, and all ages, are affected with dental disease that if this be a *vera causa*, good accommodation would be the possession of only a favored few; whilst lastly, even Schmidt, who paid particular attention to the subject, was only able to examine eight cases out of nearly a hundred, after the extraction of the offending tooth or teeth. In five of these, however, distinct improvement was observed. The diminution in the power of accommodation was in each case characterized by the recession of the near point, whilst the far point remained unaltered. After extraction of the affected teeth the near point approximated to the eye.

Another class of cases in which a reflex influence appears to be exerted upon muscular tissue is that in which the muscular tissue of the iris is affected. This condition is termed *iridoplegia* or *mydriasis*. In it the pupil is widely dilated and motionless, owing, as is generally believed, to paralysis of the sphincter pupillæ, which is supplied by the ciliary nerves containing branches of the third nerve; but it is possible that it may be due to contraction of the dilatator iridis, if such a muscle really exists, and this might be produced either by irritation of the branches of the sympathetic or of the fifth pair, which Bilogh believes supply it.

It is remarkable and suggestive of its mode of origin that mydriasis rarely if ever occurs simultaneously on both sides, and in many cases that I have seen in past years I have scarcely ever been able to trace the ætiology, though I must admit that I have not paid special attention to the teeth. It is instructive to find that in one case recorded by Desmarres, a cure was effected by the extraction of a carious molar, and in future I shall certainly, in any case of the kind that may present itself, make a careful examination of the teeth.

In the cases that have fallen under my care the dilatation of the pupil has been permanent, which points rather to some organic lesion, such as might be produced by neuritis, than to any inhibitory influence.

One case, and so far as I know one case only, of *exophthalmia* has been placed on record. It is contained in a recent number of the "Recueil d'Ophthalmologie" of Galezowski, 1882, p. 441, and is reported by Weinberg. The chief facts of the case are that a widow presented herself in the out-patient department with an exopthalmia, accompanied by severe pain of the right eye. She had suffered for thirty-five years from epileptic vertigo and cramp of the stomach. In the month of March of last year she had an attack of phlebitis of the left femoral vein, and on examination she had varices in this leg, and some œdema of the left leg. For five weeks previous she had experienced noises in the right ear, with fronto-temporal cephalalgia of the same side and pricking sensations of the eye, which lost its normal aspect, and she had intermittent sleeplessness. The pricking sensations gave place to lacinating pain, the eye reddened, and the bulbar conjunctiva was strongly injected. For four days previous to her appearance the vision had become hazy.

On examination the tension was found to be + 1, and there was exophthalmia of the right eye. The cornea was hazy; the palpebral

and bulbar conjunctiva were much injected; the movements of the eye outwards and inwards were insufficient. Opthalmoscopic examination showed floating particles in the vitreous, and as she was *myopic* a crescent, the peripheric retinal veins were injected. The whole retina was redder than natural; near the macula were several hemorrhagic spots. The heart, arteries, lungs, and the urine were normal. She could read No. 1 at three inches distance. Two leeches were ordered to the right temple; alternating instillations of atropine and eserine were ordered, but the former gave pain and was discontinued.

Ten days later, severe periorbital pain being experienced, with acute chemosis, the teeth were examined, and two carious teeth and a stump were found and promptly extracted. The results were remarkable. In the course of three days the patient was greatly improved in health, the chemosis had disappeared, as well as the injection of the conjunctiva, and above all the exopthalmia.

In such a case as this we might attribute the relaxation of the vessels spoken of as conjunctivitis to paralysis of the vaso-motor system, and consequent passive dilatation of the conjunctival capillaries; whilst the protrusion of the globe may have been due to relaxation and loss of tone of Turner's periorbital unstriated muscle and of the several recti muscles, as well as to relaxation of the vascular and lymphatic systems behind the globe—all conditions that are explicable on an inhibitory influence being exerted by the damaged tooth.

That *strabismus* may be induced by dentition, and especially by difficult dentition, is, I think, generally admitted. Travers, as long ago as 1824, wrote: "Strabismus is also a symptom of irritation arising from difficult dentition." Many cases of strabismus come on quite suddenly, sometimes without the occurrence of any fit, but oftentimes immediately after a fit during the first year of life, and therefore, when the muscular exertion of the eye, requisite to be made to effect accommodation can have had nothing to do with it; for few children look intently at near objects, when alone the accommodation is brought into play, during the first few months of their existence. Yet the opinion that dentition is a cause of strabismus seems to rest on general consensus of opinion only, rather than upon any special well-authenticated cases. And the frequency with which it is referred to in recent books is much less than was formerly customary; in fact, in some of the more recent treatises in Germany and France it is not even mentioned. This is attributable to the important generalization of the ætiology of strabismus made by Donders, that in by far the greater number of cases it is due to hypermetropia.

The time at my disposal will not permit me to enter into any details in regard to the mode in which hypermetropia, or long-sightedness, leads to strabismus, but it will be enough to say that the hypermetropic eye is a flattened eye, that in accommodation for near objects great convergence of the eyes is required, and that a powerful and sustained nervous impulse is required in order that a near object should be fixed by both eyes, and that, owing to defective association between the effort for accommodation and that for convergence, convergent squint is frequently induced.

Other striated muscles that have been noticed as being occasionally affected in a reflex manner by disease of the teeth have been the levator palpebræ and the orbicularis palpebrarum; the former supplied by the third nerve, the latter by the seventh; the paralysis or paresis of the former leading to more or less expressed *ptosis*, the latter to *lagophthalmos*. Ely has recorded three good cases of such affections, in one of which there was paresis of the orbicularis palpebrarum, with irregular spasm of the ciliary muscle and monocular diplopia. In another there was paresis of the rectus internus and ciliary muscles, and in a third case partial paresis of the third nerve.

An affection that is not unfrequently observed is that which is termed *blepharospasm* or incessant winking of the lids, the movement being sometimes limited to the orbicularis palbebrarum, but at others extending to other muscles, such as the zygomatici and levatores anguli oris. This affection is well known to be associated with the error of refraction known as hypermetropia, when a powerful effort of contraction of the ciliary muscle is demanded. The impulse emanating from the brain, instead of being limited to the nerve supplying the ciliary muscle, has a strong tendency to radiate through other channels, and consequently to affect other muscles; whilst in some instances the secreto-motory fibres of the fifth nerve are excited and a copious discharge of tears results.

But that similar conditions may be established in a reflex manner by some lesion of other nerves is well shown by a case that was reported many years ago, by Von Gräfe, to the Medical Society of Berlin. In this instance the blepharospasm ceased almost instantaneously when pressure was made upon a point situated below the alveolus of the third inferior molar tooth. At this point an incision was made down to the bone, but without modifying the blepharospasm in any appreciable degree. But having then established the fact that compression of the sub-orbital nerve and of the temporal

branch of the malar materially diminished the spasm, section of these nerves was performed. The spasm immediately ceased, and the case was thought to be cured, but it reappeared at the expiration of a fortnight. The section of the inferior dental nerve performed within the mouth ultimately caused the blepharospasm to cease entirely, and it had not reappeared four weeks after. A case of convulsive tic, as he terms it, has also been recorded by Mitchell, which, supervening spontaneously, was propagated to the muscles of the neck and arms, and which entirely disappeared after the removal of several teeth.

As additional evidence of the influence of the stimulation of other and distant parts of the nervous system on the orbicularis may be mentioned the observations of Claude Bernard; for this experimenter found that section of the sympathetic is followed by partial closure of the lids, and inversely if blepharospasm is induced in an animal by irritating the cornea with some caustic substance it may be removed by galvanizing the sympathetic in the neck, when the lids open immediately, as by magic.

From the consideration of the influence of carious and painful teeth upon the striated and unstriated muscular tissue of the eye, I pass to that which they may be supposed to exert upon the conjunctiva, cornea and sclerotic. And I would refer in the first instance, to the affection named phlyctenular ophthalmia, which is very frequently associated with carious teeth, and which I believe to be often caused by them.

Phlyctenular ophthalmia consists in the appearance of one or more small vesicles, soon bursting and forming ulcers around the margin of the cornea, or on the surface of the cornea, or of the sclerotic. Sometimes only one is formed; at others a succession appears. They sometimes produce little or no uneasiness; at others they are attended with great intolerance of light, and abundant lachrymation. The child—for the disease occurs more frequently in children—keeps in the dark during the day and only becomes lively at night.

The pathology of this disease is tolerably well known. It is believed to result from an inflammatory process, attended with the proliferation of the nuclei along the sheaths of the nerve. The nuclei gradually advance towards the surface along the conjunctival, corneal and sclerotic branches of the fifth nerve, and accumulating on the surface, form, with a little fluid, the contents of the vesicle, and when the vesicle bursts they gradually break down and disappear.

Now in cases of phlyctenular disease I have been accustomed to

give minute directions in regard to diet, believing that this affection owed its origin to reflex irritation of the nerves of the eye, consequent upon some disturbance of the stomach and intestinal canal; and to the mothers of the numerous little patients suffering from this affection in our ophthalmic hospitals, I have been accustomed, after ordering a brisk purge and some quinine, to say, "Attend to its diet; no sweets, no pastry, no raw fruit. Give it bread and milk, finely cut-up meat and potatoes," and I am perfectly satisfied with the result of that treatment; but it has occurred to me that the view I have hitherto entertained of the ætiology of the disease may be erroneous, and that instead of the stomach, the teeth are perhaps the organs at fault. It is easy to comprehend that the mastication of raw apples, candied lemon and orange peel, jam tarts, and the like, lead to the impaction of acid and fermentable substances in the cracks and crannies of the teeth, especially if these are carious, and that remaining there for hours or days, if the due cleansing of the mouth after food is neglected, such particles may set up inflammatory troubles which may propagate themselves along the nerve and lead to what we term reflex phlyctenular inflammation of the eye.

No doubt there are many exceptions to the rule that carious teeth and phlyctenula of the conjunctiva are associated, but I have noticed that a large proportion of the children who have phlyctenular ophthalmia have also carious teeth. Surely this is very suggestive of the ætiology of the affection.

The occurrence of inflammation of the conjunctiva in such cases as the foregoing, as Weinberg remarks, may be explained on two theories: on the one hand, when any organ is under the influence of some stimulus, this influence may modify the nerve filaments which terminate in this organ, and thus occasion phenomena of a reflex nature, either in the eye or elsewhere.

But it may also happen that the irritative process itself, whatever that may be, may propagate itself until it reaches the filaments which excite the neighboring organ. It is evident that this can only happen when the filaments supplying the affected organs are derived from the same nerve, or when there are anastomoses between two nerves distributed to different organs. The two kinds of propagation, he observes, are well exemplified in the case of a carious tooth. In one instance there shall be well-marked conjunctivitis which resists ordinary treatment. The mouth is examined and a carious tooth is found the very existence of which is unknown or forgotten by the patient,

so slight has been the inconvenience he has experienced from its presence. The tooth is extracted, and the conjunctivitis forthwith and spontaneously disappears. This is a case of purely reflex action. But other cases are met with in which odontalgia is present, and in which the redness of the conjunctiva is accompanied with the small phlyctenular ulcers to which attention has just been drawn, with chemosis and some impairment of vision. The pathogeny of this affection is more complex; part of the symptoms are here due to reflex irritation, but part also to an extension of the dental neuritis to the ophthalmic branch.

In the course of nine months' out-patient practice, Weinberg believes he met with 188 cases of ocular disease dependent on dental lesion.

I have some reason for believing that serious lesions of the cornea may be primarily due to carious teeth, and I will venture to give you the heads of a case that I watched with much interest, but which ended disastrously so far as the eye was concerned.

J. F., a stout, ruddy Scotch girl, aged twenty-four, previously healthy and with good family history, suddenly, after exposure to cold, was seized with a sudden sharp pain on left side of face. The vision was then good on that side, but after a few days became dim. A small circumscribed collection of pus formed exactly in the center of the cornea, and she was then brought to me. She was treated for a few days with quinine and hydrargyrum c. creta, and with atropine drops, no improvement resulting. I performed paracentesis corneæ at the side of the cornea, which the girl bore without flinching. Slight improvement followed. Local depletion, in the form of leeches and blisters, and general tonic remedies, strychnia and iron, were prescribed; but, the case dragging on, I again determined to tap the cornea, and this time passed the needle through the little abscess. The extreme indifference she showed to the puncture attracted my attention, and I then discovered that the cornea was anæsthetic, and that the sensation of the whole region supplied by the ophthalmic branch of the fifth was greatly impaired, though not quite lost. She was a servant, and as the case was likely to prove a troublesome one, she was taken into St. Bartholomew's Hospital under my care. The abscess had now become an ulcer; the cornea was generally hazy; there was much conjunctivitis, but no chemosis. She could distinguish the points of a pair of compasses at a distance of 1·5 c. m. over right brow, but only at a distance of 4·5 c. m. over left brow.

Special attention was now paid to the teeth. She stated that she had suffered much from toothache, and several carious teeth were found in both jaws, but especially on the left side. Four molars were extracted at once. In the course of a month from this time the cornea had become clearer; some hypopyon previously present disappeared. The iris could be seen, and vision which had been almost lost recovered sufficiently to enable her to count figures, whilst the anæsthesia of the globe almost vanished. She left the hospital and took a cook's place, but she returned about seven months after, stating that the eye had slowly deteriorated, perhaps from exposure to heat, and although there was now no loss of sensibility, the inflammation of the cornea and of the sclerotic, and the general discomfort from the condition of the globe, preventing her from doing her work, was so great that I determined to perform abscission, which was done nearly a year after the commencement of the disease, and the girl made a good recovery.

The lesion of the cornea in such a case as this may be referred to its anæsthetic condition; but the question arises, What caused the anæsthesia? and I can suggest no cause for it except that her teeth were seriously affected.

[To be continued.]

DEATH IN THE DENTIST'S CHAIR.—The wife of a prominent physician of Portsmouth, Va., died March 9, at that place, from the effects of chloroform administered previous to the extraction of some of her teeth. There have also been three deaths from chloroform at Baltimore since October, 1882. When will dentists cease to meddle with this most fatal agent?

THE COUNCILLORS OF THE MASSACHUSETTS MEDICAL SOCIETY have voted that Columbus Medical College be dropped from the list of medical colleges whose diplomas are recognized.

EDITORIAL.

CRITICISMS.

In the April number of the *New England Journal of Dentistry* the question of vulcanized rubber is again brought up by well-known Dr. Haskell. That mercurialism came from vulcanized plates, we doubt; we doubt it so much that our doubt is almost conviction. What were the exact symptoms of these mercurial poisonings? The simple idea of even the best of authorities declaring something mercurial poisoning, does not prove the least. Through many centuries people have been abused with mercury, and what we might almost call hereditary aversion against mercury was thus produced. Every sore mouth is right away attributed to mercury, especially by the observer who has been treated to a homeopathic training with all its reasoning and faith, equal to that of a revivalist. Such an observer simply declares these things to be so, as a kind of self-evident truth, like $2 \times 2 = 4$, and yet all, everything about it, rests on guesses, notions and hearsay.

Dr. Haskell does not believe much in the mercurial poisoning, but he thinks the non-conductibility to be the chief producer of the trouble. It is one of the factors, there is no doubt, but there are some other factors not to be lost sight of. One has been mentioned in this journal before, in a little article about the defective smoothness of dental plates, in consequence of which the tissues do not fit closely and allow the accumulation between plate and gums of putrid mucus and irritating secretions. The fact that a simple covering of the rubber plates with the Robinson felt foil has produced exactly the same improvement as the use of metal plates, shows that this view of the importance of smoothness has something in its favor. Does not Dr. Haskell observe the same amount of absorption where there is catarrh of the mouth without any special plate being worn? We agree in the general result, but we think as metal plates are superior to vulcanite or celluloid, that the causes are also to be looked for in the defective cleanliness of the plate which is brought about by the imperfect smoothness. Even celluloid is softened superficially by the action of the liquids of the mouth, and thereby loses its smoothness, whilst "continuous gum work" and plates of metal never are liable to this defect. Patients who cannot afford metal plates very often are of less cleanly habits than those who can, and they too often wear

their rubber plates for weeks without sufficiently cleansing mouth or plates, while the richer class not only can afford these excellent smooth metallic plates but, besides, have been trained from early childhood to give a good deal of attention to the cleanliness of mouths, gums and teeth.

Dr. F. Y. Clark publishes an excellent article in the April number of this journal, criticising some of Dr. Miller's reasoning. It appeared to us a very careful and interesting article, and we agree with Dr. Clark in many of his deductions, not because we consider him superior as an investigator to Dr. Miller, who has at his disposal the incomparable apparatus of that great alma mater of Berlin, the principal University of the German empire, with her 4,000 students and 150 professors and teachers, but because the reasoning of Dr. Miller does n't seem to us up to his investigating skill.

In the April number of the *Dental Headlight*, Dr. W. H. Morgan, of Nashville, has a very good article on the treatment of pulpless teeth. He speaks of the antiseptic properties of the oxy-chloride of zinc. The only way in which we can conceive that oxy-chloride of zinc possesses antiseptic properties is by its hermetically sealing up a cavity and not letting in any promoters of sepsis. The insoluble oxy-chloride could, as such, be only an antiseptic if it was soluble; but the Doctor could very easily test the assertion. He could put any amount of oxy-chloride globules into a solution capable of sepsis, and he will not find that they prevent any sepsis; that is, they do not prevent fermentation or putrefaction, at least not until a great amount of zinc has been dissolved in the acid generated during the fermentation.

The Doctor says: "Arsenic being one of the best antiseptics and one of the best germicides known." We take exception to that statement. Let the Doctor try the experiment. He may put some meat in a solution of arsenic, about 1 :200, and if after four weeks the Doctor is not convinced that arsenic does not prevent sepsis, we will confess beaten. We have to be clear what sepsis means and what an antiseptic has to do. With sepsis, or, as what we almost consider the same, putrefaction, we understand the decomposition of albuminous substances by lower organisms into products which are offensive to our senses. An antiseptic can properly be called only a substance which by its presence and readiness of action in very small quantities—say less than one in a thousand—prevents putrefaction. If we use sugar strong enough, it is a perfect antiseptic; also salt, in

the proportion of 1–10 water, is a perfect antiseptic. Mercuric chloride in the proportion of 1 :50,000, arsenic in the proportion of 1 :20, sulphuric acid in the proportion of 1 :100, are antiseptics; but if less concentrated, all these substances lose their antiseptic properties; last of all, the bichloride of mercury. Thus the term *antiseptic*, just like the term intoxicant, does not only include quality but also quantity; and, as the term is popularly used, arsenic can hardly be called an antiseptic, for then almost every substance which is soluble in water would have to be called so.

M.

CORROSIVE SUBLIMATE AS A GERMICIDE.

Corrosive sublimate being the germicide that is attracting much attention at the present time, we give the following extracts as containing possibly some suggestions to those who are experimenting with this "dead-shot" drug:

"Vigier recommends four or five parts of corrosive sublimate, dissolved in one hundred parts of glycerine, in place of mercurial ointment, for parasites of the skin. It has been known for a long time that glycerine is not absorbed by the skin, and that it also prevents the absorption of medicines, and to a great extent that of corrosive sublimate. Therefore, on account of its greater cleanliness, and greater security from the absorption of mercurials, it is to be preferred to blue ointment."—*Pharmaceutische Centralhalle, Phar. Record.*

The *suggestion* in this quotation is in the idea of dissolving the salt in glycerine, it, thus prepared, being less liable to be absorbed; consequently, a more "heroic" use may be made of it in cases of pyorrhœa alveolaris, etc.

"Kaulich, believing diphtheria to be due to an organism, selects corrosive sublimate as the best germicide to treat this disease. He washes the false membranes of the mouth, nose and throat with a one-twentieth to one-tenth per cent. solution. In children who have undergone tracheotomy, the trachea was washed with the same solution. The application was made four times a day, or sometimes even every two hours. Inhalations of solution of only .005 per 1,000 were used for fifteen minutes every hour or at more extended intervals. Internally he administers to children one to two centigrams (equals about one-sixth to one-third grain) of the drug daily in albuminous water, to which a little cognac and sugar have been added." —*London Med. Record.*

Several gentlemen of our acquaintance are at present engaged in a series of experiments with this drug, endeavoring to decide as to

its availability in dental surgery. That it is a sure antiseptic there can be no doubt. "It kills all germ life like lightning" is the remark of one scientist, even with a solution of $\frac{1}{1000}$. So powerful is this drug that great care and much painstaking experimentation must be had before it will be known just where the border-line of safety is. It is, however, used to-day, by both the medical and dental profession, in cases and to an extent that, a short time since, would have caused many men to have held up their hands in "holy horror." From at least two sources, where for some time past examination has been in progress, we have very favorable reports regarding its efficiency in the treatment of "Rigg's disease," and in our next number we hope to be able to present a report in detail by one of our best investigators. In the meantime we shall be glad to hear from any who are using it, or experimenting in this direction.

The question of *antiseptics* has become the "burning question" of the day in the minds of the leading dentists in this country, and one more important and far-reaching can scarcely be conceived of. Investigation has already led to a notable want of confidence in nearly all of the commonly used *so-called* antiseptics, and it is quite remarkable that both the medical and dental professions are so commonly turning their attention to bichloride of mercury or corrosive sublimate.

BROMINE AS A DISINFECTANT.

The vapor of bromine has a very strong disinfecting power, and it penetrates everywhere; but there is a drawback to its use, namely, that it is a liquid which can only be handled by experienced people. To bring it in a more practical form, Dr. A. Frank, of Charlottenburg, near Berlin, has impregnated little sticks, made of compressed siliceous earth, with bromine. The price for fifty of these little sticks, which are sufficient to disinfect a space of about two hundred cubic yards, is only about two dollars. These little sticks lose in a room which one wishes to disinfect slowly their bromine. To protect metallic substances, one has to place a vessel with kerosene near them, the latter absorbing the vapor in its neighborhood.

We give this month, under the heading of Books and Pamphlets, a further notice of Prof. Garretson's *Oral Surgery*, by another of our editors.

STATISTICS OF QUACKERY.

The kingdom of Bavaria has very interesting statistics about a very interesting phenomenon, of which statistics in this country would be almost impossible, namely, the statistics of quackery. The law of Germany is very strict, and one knows very surely who is a quack and who not. Whoever has not gone through the prescribed course of medical instruction and tries to practice medicine or any branch thereof, is a quack. Among the five and one-half millions of inhabitants of the kingdom, were 1,477 quacks in 1882—1,066 men and 411 women. The number of male quacks has decreased in comparison to the previous year by twenty-seven, but the female quacks increased by five. For quite a number of years the number of female quacks is on the increase. This quack-statistic is carried into fine details. With the exception of three, all are native quacks. As to their other calling, the greatest percentage of quacks is among barbers and dentists. Next come small farmers, and finally small traders. Four wives of doctors are set down as quacks, two nuns and eighty parsons, while only eleven teachers have entered that disgraceful business.

A very interesting chapter form the different branches in which quackery is practiced. The greatest number are engaged in general healing. Next come those who prepare patent medicines, then come the harmless homeopaths. There were only four dental quacks in the State. Magnetism and electricity are used only by three quacks, while for boils and abscesses one can consult seventy-three quacks.

Another interesting point, and one that has bearing on the relation of quacks to the education of the masses, is this: The illiteracy in the Catholic provinces of Bavaria is about seven per cent.; in the Protestant, one and one-half. Of all the quacks, there live four-fifths in the Catholic provinces and only one-fifth in the Protestant. The Protestant province of Phals, though in population one-eighth of the whole State, has only one-fiftieth of the number of quacks; thus it may be said that the ignorant and superstitious consult quacks, as compared with the more educated, in the proportion of six to one. Another proof of it may be found in the number of those who consult sympathetic doctors. There is not one of them living in the Protestant provinces (over two-fifths of the State), while 152 are living in the Catholic provinces. How would many of our doctors fare before that tribunal? Well, the graduates of Harvard, Yale, Ann Arbor, University of New York, University of Pennsylvania, etc., would be

fully recognized doctors; but graduates from quite a number of other colleges, and the host of ignorant paths would form woeful statistics of good American thoroughness and knowledge. American dentists, as a great mass, would not be considered as quacks; only if, besides practicing dentistry, they should do business in homeopathy or allopathy they would be quacks, and as such punished by law. There exists no law which enables a person to get damage for malpractice, but the government proceeds ex officio against all quacks. Every druggist who would recommend a syrup or a patent medicine would be termed a quack, and be liable to fine. The chief point of difference between quacks and doctors, as maintained also in that country, is that of knowledge. Any man who thoroughly knows his business is not considered a quack; it is only against the pretender that the law is carried out.

BICHLORIDE OF MERCURY AS AN ANTISEPTIC.

Dr. Koch, of Berlin, has made experiments with corrosive sublimate, and finds that its antiseptic effect begins already with a dilution of one to two hundred thousand. In a solution containing only one to five hundred thousand, no germs can any longer exist; a solution of one to twenty thousand destroyed the life of the anthrax germ in ten minutes; in a solution of one to one thousand, sublimate kills germs almost instantly.

BOOKS AND PAMPHLETS.

A SYSTEM OF ORAL SURGERY. By James E. Garretson, M. D., D. D. S. *Fourth edition.*

To tell any dentist who Prof. Garretson is would be an insult to our readers, and we do not doubt that to thousands in the profession the book has and will prove something of a professional Bible. The reputation, experience and opportunities of that author have produced in this fourth edition a work which it is impossible to criticise in detail; every article would deserve special entering into and studying, and we doubt if many in this country would be competent to show greater experience than Dr. Garretson. The introduction to the book is a comprehensive and practical synopsis of the anatomy of the different

parts of the face in their osteological, myological, angiological, and neurological relations.

The diseases of the teeth and gums, their treatment, the different points in mechanical and surgical dentistry, occupy almost exactly one-half of the book. For details in the merely microscopical aspect of the teeth and surrounding structures, the book of Heitzmann is more complete; but as the scope of the book of Garretson is more to to give practical hints, details in anatomical points are properly left to books about histology.

We are sorry to see such an illustrious man as Dr. Garretson speaking of the "vice of syphilis;" to him it is not a vice, but a disease, and whether it is vice or not, depends on the peculiar church views he adheres to. The term vice is so arbitrary, and depends so much on the standard we take, that a man of Dr. Garretson's standing certainly used this term only by a slip of the pen. Not the syphilis itself is the vice, but some of the doings which propagate the disease. The term "vice" includes too much of that "holier than you" pharisaism. If a child has syphilis, it only has a disease for *Dr.* Garretson, and not at all a vice, what it might be for *Rev.* Garretson, unless we believe also in medical original sin. One might just as well speak of the vice of peritonitis, because occasionally a crime may be connected with an act that brought about peritonitis; but Dr. Garretson commits an evident confusion of cause and effect when speaking of the vice of syphilis. Many persons have syphilis without having any "vice" connected with it. If there is a "vice of syphilis," then there is also a vice of scrofula, a vice of nervousness, a vice of caries, etc., for more or less all these may be connected with criminal acts.

Every one dislikes to see a man, whom he otherwise deeply respects, in a certain small point illogical and weak; it detracts somewhat from the enjoyment in the man, and mars the favorable impression we get of him otherwise.

A very clear point seems to us to be made by Prof. Garretson in the statement that the child's disease in the line of syphilitic affections is nothing but the continuance of the disease in the parents. But, fortunately, the disease is much rarer, at least in those parts of the United States where the Yankees proper prevail, than where there is a large percentage of French and a mixed population.

We might doubt very much what Dr. Garretson says about the "typh poison." It is to us altogether too crudely chemical, and the fact that a greater number of patients treated with acids during a

typhoid epidemic survives than of patients treated with alkalies, seems very little conclusive, taking into consideration how much more palatable even in ordinary health acid drinks and food are than alkaline one, and how much alkali fosters micro-organismal life within the body.

Also the electrical theory of caries receives extensive consideration from Dr. Garretson.

The book is so replete with information that it is perfectly impossible to more than hint its interesting points.

We would hardly value a dentist very highly who would fail to investigate the book closely and carefully. The only excuse we would accept in this case would be that he knew already as much or more than Dr. Garretson.

M.

THE BACTERIA, by Charles S. Boynton, M. D., Rutland, Vt. Read before the Vermont Dental Society, and reprinted from the *New England Journal of Dentistry*. March and April, 1884.

Dr. Boynton quotes Dr. Burrill as recommending aniline violet for staining micro-organisms. It has simply the slight objection that in liquids containing certain salts the aniline violet by itself produces a precipitate which may be confounded with the bacterium. Eosine does not have that objection, or, if at all, in a much smaller degree. It stains the specimens finer and neater than aniline violet, and one is not as liable to overstain them because, even in the most concentrated form, it only gives a slight crimson red.

A great deal of the paper shows the conscientious, careful student, who mentions every line he quotes. The question whether bacteria are animals or plants is so perfectly indifferent that we have occasionally to force ourselves to read such hair-splitting performances as are needed to try to prove one as an animal and the other as a plant, and yet after all to leave us in just as much doubt as before. Hæckel probably did the right thing in calling them protists.

Dr. Boynton lays the greatest importance on the latest investigations in this direction made by Drs. Magitot, Miller and others, which have established so conclusively the action of lower organisms on teeth. It is a pamphlet well worth careful reading. M.

THE ARCHIVES OF DENTISTRY. Successor to the *Missouri Dental Journal*. A Monthly Record of Dental Science and Art. New Series, Vol. I., No. 1. January, 1884.

VULCANITE AND CELLULOID: Instructions in their practical working for dental purposes. By S. Eldred Gilbert, D. D. S. S. S. White Dental Manufacturing Co., Philadelphia.

This seems to be quite a desirable little text-book for its intended object. It is intended especially for students, and will give them all needed information. We regret that it does not more strongly advise the use of plain teeth instead of blocks, as being much more life-like. It is neatly printed and bound, well indexed and illustrated. Every young, and many older practitioners, will find it a valuable book for reference.

RECEIVED:

Transactions of the Illinois State Dental Society: Nineteenth Annual Meeting, 1883.

Transactions of the Dental Society of the State of New York: Fourteenth and Fifteenth Annual Meeting, 1882 and 1883.

Transactions of the American Dental Association, at the Twenty-third annual session, held at Niagara Falls, August, 1883.

Calendar of the University of Michigan for 1883-84.

The Proceeding of the Naval Medical Society, Vol. I., No 6, 1884.

A Consideration of Temperament in Relation to the Teeth, by James W. White, M. D., D. D. S. Reprinted from the *Dental Cosmos*. February, 1884.

A Consideration of the Merits and Claims of Artificial Crown and Bridge Work. J. L. Williams, New Haven, Conn. Reprinted from the *Dental Cosmos*.

Transactions of the Ohio State Dental Society. Eighteenth Annual Meeting, 1883.

SOCIETIES.

The twentieth annual meeting of the Illinois State Dental Society will be held in the Senate Chamber, Springfield, commencing Tuesday, May 13, 1884, continuing four days.

J. W. WASSALL, D. D. S., *Secretary*,
103 State St., Chicago.

The Dental Society of the State of New York will meet at Albany, on Wednesday and Thursday, May 14 and 15. The Board of Censors will meet at the same place, May 13.

J. EDW. LINE, *Secretary*,
Rochester, N. Y.

THE CONN. VALLEY DENTAL SOCIETY

Will hold a two-days' meeting at the Sea View House, Savin Rock, New Haven, Ct., June 18 and 19, 1884. Efforts are in progress which promise an excellent meeting. Information relative to the same may be obtained by applying to the chairman of the Execuive Committee, Dr. George A. Maxfield, Holyoke, Mass., or Dr. W. F. Andrews, Secretary, Springfield, Mass.

VERMONT STATE DENTAL SOCIETY.

The eighth annual meeting of this society was held at St. Albans, March 19 and 20, and the following officers for the ensuing year were chosen: President, Dr. R. M. Chase, Bethel; Vice-Presidents, Drs. G. H. Swift of Manchester, and R. W. Warner of St. Johnsbury; Secretary, Dr. T. Mound, Rutland; Treasurer, Dr. James Lewis, Burlington. Executive Committee, W. H. Munsill, C. F. Lewis, W. S. Curtis. Burlington was selected as the next place for meeting one year hence.

ANNUAL COMMENCEMENT OF THE DENTAL DEPARTMENT OF THE UNIVERSITY OF MARYLAND.

The second annual commencement of this Dental Department, in connection with the seventy-seventh annual session commencement of the Medical Department of the University, was held March 14, 1884, at the Academy of Music, Baltimore, in the presence of a large audience. The degree of Doctor of Dental Surgery was conferred upon the following gentlemen:

Theodore W. Albright, New York; James B. Bigham, South Carolina; Charles B. Blubaugh, M. D., West Virginia; Wilbur C. Bressler, Pennsylvania; Henry H. Boswell, Maryland; John H. Brown, Ohio; George Buttler, Jr., N. Jersey; John M. Comegys, Tennessee; George V. Copp, Virginia; Almond J. Cutting, Massachusetts; Isaac H. Davis, Maryland; Watson E. Dorchester, New York; Richard D. Evans, South Wales, G. B.; Claus Henry Filter, Germany; Nathan E. Foote, New York; Frank C. Gallup, Connecticut; James Edwin Harris, Maryland; S. Dwight Hodge, Vermont; R. Dallas Kibler, Virginia; Wiley S. Killingsworth, South Carolina; Chas. J. Ladson, District of Columbia; Clarence E. Lemley, Virginia; William Edward Lewis, Florida; Job B. Mallott, Pennsylvania; Charles H. McDowell, North Carolina; Semoney J. Minghini, West Virginia; S. Latimer Phillips, Virginia; George Edward Purnell, Maryland; Nelson T. Shields, Texas; A. La Fayette Stratford, North Carolina; Reading B. Swindell, North Carolina; John E. Taggart, Vermont: Robert R. Vaughan, Missouri; Richard van der Hoppe, Austria; Joseph T. Wayman, Virginia; Elmer J. Wisherd, Maryland.

The "University Pledge," relating to empiricism, was assented to by every graduate.

THE NEW YORK ODONTOLOGICAL SOCIETY.

The regular monthly meeting of the New York Odontological Society was held Tuesday evening, April 15, at the residence of Dr. Dwinelle, where members and guests had good cause for satisfaction at being present.

Some interesting incidents of practice were given, and Dr. N. W. Kingsley read an extract from an article on Dentistry, which he is writing for an international medical encyclopedia. The event of the evening was the paper by Dr. J. Smith Dodge, Jr., upon "The Spheroidal Tendency of Amalgam," in which he demonstrated, by the use of well-known geometrical laws, how such tendency may cause the failure of a filling, or, on the other hand, how it might be made use of to improve and perfect the operation. A general discussion very complimentary to Dr. Dodge followed, in which Drs. Bogue, Lord, Clark, Clowse, Francis and Jarvie participated.

Dr. J. Foster Flagg, of Philadelphia, who was to have been present, was detained at home by illness.

D.

A NEW SOCIETY PROPOSED.

To the President and Members of the

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Dental Association.

GENTLEMEN: The foremost men of our profession admit the fact that the name of American Dentistry has not that world-wide recognition which its honor demands, and its history would warrant. In our opinion, this is an opportune time for a general movement to place it upon a basis commensurate with its dignity, and we venture to submit the outline of a plan for the purpose, which we think feasible, and which we hope will meet with your sanction and furtherance.

As a nation claiming to lead the world in the science and art of Dentistry, we should have one great representative body of the profession to speak forth with authority its aims, duties and attainments.

Let us, therefore, organize a National Dental Association of the United States, composed of delegates elected by the various State organizations, an equal number from each State, to meet annually, and always at Washington, D. C. Thus, we would give to Delaware the same voice as to New York. In order to always secure a full meeting, we would suggest six as the number of delegates from each State; a like number of alternates having been elected. Let the National Association elect a Board of Regents, one from each State, who shall control its meetings, setting the time, etc.

As important adjuncts to this Association, we believe it would be found expedient to establish an extensive library, to contain dental works and publications, standard and periodical, foreign and native;

and the founding of a national museum, to illustrate the past, present and future of dentistry.

The wonderful benefit to the profession and humanity in general to be derived from these is certainly manifest to every intelligent dentist.

We are sure that room can be obtained in the Smithsonian Institute for the museum, and in the library of the Surgeon General's office for the library. We are equally sure that Congress will grant an appropriation for both purposes, as is done for the medical profession.

Mature deliberation at the meeting for organizing will suggest the details of the scheme, which we have not thought it necessary to go into here.

In conclusion, we would respectfully urge that you elect, at your present meeting, delegates, with alternates, to meet for the purpose of organization at the time agreed upon by the chairmen of the different State delegations.

Do this in anticipation of like action upon the part of other State societies; then forward to Dr. B. H. Catching, Atlanta, Ga., the name and address of your chairman, and he will act as medium of communication between the different delegations. informing each of the action of the other, thereby bringing about unity of action.

Yours respectfully,

FRANK ABBOTT, New York City.
J. E. CRAVENS, Indianapolis, Ind.
C. T. STOCKWELL, Springfield, Mass.
F. SEARLE, Springfield, Mass.
W. C. WARDLAW, Augusta, Ga.
B. H. CATCHING, Atlanta, Ga.

We are informed that the response to this address is very cordial and hearty from all parts of the United States, and that there is scarcely a doubt that the plan will substantially be carried out. It seems to us to be desirable, and that it need in no way interfere with other existing societies but, rather, that it may be a very valuable supplement to such and a decided advantage to the profession.—ED.

Philadelphia Dental College

AND

HOSPITAL OF ORAL SURGERY.

Copies of Announcement, affording all information as to this Institution, are to be obtained by addressing

Dr. J. E. Garretson, 1537 Chestnut St., Philadelphia, Pa.